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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HASSAN, AURANGZEB

ART UNIT PAPER NUMBER

2182

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/830,197

Applicant(s)

WU, ANDY C.

Examiner

Aurangzeb Hassan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/829,913. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application No. 10/829,913 claims 1-19 contain every element of the identified claims of the instant application and as such anticipates the identified claims of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. The Double Patenting rejection from the first office action is still pending and the examiner acknowledges the applicant's remarks received on 7/21/2006 citing delay of filing of a terminal disclaimer until time (if any) of allowance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 5, 7 – 10 and 21 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Publication Number 2005/0083741, hereinafter "Chang") in view of Satterwhite (US Patent Number 5,519,329).

6. As per claims 1 and 2 Chang teaches a universal serial bus (USB) apparatus comprising: a USB interface module for connecting to a USB interface of a host (each USB peripheral device internally contains a USB microcontroller that performs functionality associated with identifying the device to a host, paragraph [0006]); a USB memory module for reading and writing data (paragraph [0016]); at least a second USB module (USB wireless device, [0031]); and a switch module for switching the memory module and said USB module (figure 7), the switch module further comprising: a mechanical switch (physical slide switch, element 700, figure 7); a first switch for

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connecting with the USB memory module; and a second switch for connecting with said second USB module; wherein the mechanical switch is for controlling switching between the first switch and the second switch (various switch positions between wireless and memory modules, paragraph [0044]).

Chang does not disclose the first and second switch controlled by the mechanical switch is an analog switch.

Satterwhite analogously teaches each position of the mechanical switch (mechanical switch 58, figures 3 & 7) controlling an individual analog switch (analog switch 113, figure 7, column 6, lines 22 – 48).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Chang with the above teachings of Satterwhite. One of ordinary skill in the art would be motivated to make such hardware coupling design choice modification in order to enhancing reliability ensuring that the connection to one is completely broken before connection to another is made (column 6, lines 37 – 43).

7. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 3, Chang teaches an apparatus wherein said USB module is a wireless communication module for accessing a wireless local area network (WiFi, paragraph [0031]).

8. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 4, Chang teaches an apparatus wherein the USB apparatus can be operated

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in any one of the following three modes: a memory operating mode (position 710, figure 7, paragraph [0044]), a wireless communication operating mode (position 740, figure 7, paragraph [0044]), and an interruption mode (position 730, figure 7, paragraph [0044]).

9. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 5, Chang teaches an apparatus wherein the memory module for reading and writing data is a flash memory or an electrically erasable programmable read only memory (compact flash, figure [0016]).

10. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 7, Chang teaches an apparatus wherein the mechanical switch comprises a memory port (port for element 630, figure 6), a wireless communication port (port for element 640 & 650, figure 6) and an interruption port (logical port, based on auto run software, upstream port, element 600, figure 6 and the position 730 seen in figure 7 where both the memory and wireless are in a ready state to be utilized).

The interruption port as described in the specification of the current application is a software logical port, which puts the apparatus in a sleep state ready to be enabled to either the memory or wireless element. Chang teaches an interruption port where the memory and wireless have both been enabled. Upon request either port is utilized.

11. Chang modified by the teachings of Satterwhite as applied in claim 1 above as

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per claim 8, Chang teaches an apparatus wherein when the mechanical switch is switched to the memory port, this sets up communication between the first switch and the memory module, and the USB apparatus operates in memory operating mode (position 710, figure 7, paragraph [0044]).

12. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 9, Chang teaches an apparatus wherein when the mechanical switch is switched to the wireless communication port, this sets up communication between the second switch and the wireless communication module, and the USB apparatus operates in wireless communication operating mode (position 740, figure 7, paragraph [0044]).

13. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 10, Chang teaches an apparatus wherein when the mechanical switch is switched to the interruption port, this interrupts memory operating mode or wireless communication operating mode, and the USB apparatus operates in interruption mode (position 730, figure 7, paragraph [0044]).

14. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 21, Chang teaches a method for switching a universal serial bus (USB) apparatus (USB memory device implementation, paragraph [0016]), the method comprising: selecting an operating mode parameter for the USB apparatus, the

operating mode parameters comprising a memory operating parameter (paragraph [0016]), a wireless communication operating parameter (USB wireless device, [0031]) and an interruption mode parameter (auto run, paragraph [0017]); switching a mechanical switch (physical slide switch, element 700, figure 7) to a memory port, and enabling a first switch to drive a memory module (position 710, figure 7); setting up communication between a USB interface module and the memory module (position 710, figure 7, paragraph [0044]).

15. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 22 wherein the step of switching a mechanical switch to a port corresponding to the selected operating mode, and enabling an analog switch to drive a corresponding module connecting with the analog switch comprising: switching a mechanical switch to a memory port if the memory operating parameter is selected, and enabling a first analog switch to drive a memory module (by toggling the mechanical switch position 710, figure 7, paragraph [0044], in light of Satterwhite the analog switch is triggered to activate the memory component).

16. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 23 wherein the step of setting up communication between a USB interface module and the corresponding module comprises: setting up communication between the USB interface module and the memory module (in position 710, figure 7, paragraph [0044], communication is establish as seen in claim 22 above).

17. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 24 wherein the step of switching a mechanical switch to a port corresponding to the selected operating mode, and enabling an analog switch to drive a corresponding module connecting with the analog switch comprises: switching a mechanical switch to a wireless communication port if the wireless communication operating parameter is selected, and enabling a second analog switch to drive a wireless communication module (by toggling the mechanical switch position 740, figure 7, paragraph [0044], in light of Satterwhite the analog switch is triggered to activate the wireless component).

18. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 25 wherein the step of setting up communication between a USB interface module and the corresponding module comprises: setting up communication between the USB interface module and the wireless communication module (in position 740, figure 7, paragraph [0044], communication is establish as seen in claim 24 above).

19. Chang modified by the teachings of Satterwhite as applied in claim 1 above as per claim 26 comprising: switching the mechanical switch to an interruption port if the interruption mode parameter is selected; and interrupting a memory operating mode or a wireless communication operating mode of the USB apparatus (by toggling the mechanical switch position 730, figure 7, paragraph [0044], the logic interrupt port is

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activated and in a ready state for either wireless or memory functionality to be utilized as seen in claim 7).

20. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Satterwhite further in view of Moores, JR. et al. (US Publication Number 2003/0043042 hereinafter "Moores").

21. As per claim 6, the combination of Chang and Satterwhite teach an apparatus wherein said USB module is a wireless communication module.

Chang and Satterwhite fail to teach an apparatus wherein said USB module is a radio frequency identifier module.

In an analogous apparatus, Moores teaches an apparatus wherein said USB module is a radio frequency identifier module (short-range wireless technology, paragraph [0149]).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the combination of Chang and Satterwhite with the above teachings of Moores. One of ordinary skill in the art would have been motivated to make such modification in order to allow for compatibility in a non-limiting factor to allow for backward compatibility for a legacy mode of short-range communication from Bluetooth and WiFi to RFID as they are tiny cheap and easy to deploy (paragraphs [0151-0152]).

Response to Arguments

22. Applicant's arguments filed 7/21/2006 have been fully considered but they are not persuasive.

1.) Chang does not comprise a first or second analog switch.

2.) The present application teaches switching between the first USB module and the second USB module whereas Chang teaches switching between the autorun functionality and the wireless component.

3.) The mechanical switch is switchable to only one of the memory port, the wireless communication port and the interruption port at a time. Chang teaches simultaneous switching.

23. As per argument 1 the Examiner disagrees. The applicant states in the 35 USC 112 first paragraph remarks that the term analogical has been properly defined, however prior to the amendment of the specification and claims no where in the application was there an explicit definition of "analogical". In the first office action the examiner best interpreted "analogical switch" to mean switch. As per the applicant's amendment the examiner has provided prior art citing an analog switch controlled by a mechanical switch as in claim 1 and argument is moot in view of new grounds for rejection.

24. As per argument 2 the Examiner disagrees. In figure 6 Chang discloses a range of USB modules able to be connected to the USB hub 630-650. In figure 7, Chang

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demonstrates a mechanical switch functionality utilizing two of the USB modules from figure 6. Chang explicitly discloses a first and second USB module and the switching therein. The applicant argues limitations of Chang's autorun firmware, however the autorun firmware is simply a modification of a USB module resident on the USB flash drive with autorun capability. Chang not only has switching capabilities to switch between a first and second USB module but also has enhanced additional functionality to further switch an internal component of the USB module, figure 7. Clearly from this citation one of ordinary skill in the art can realize that Chang teaches an enhanced first and second USB module with full switching functionality associated therein.

25. As per argument 3 the Examiner disagrees. Chang in figure 6 teaches a hub with one or more USB modules connected with multiple distinct functionalities. It supports not only simultaneous but enhanced isolated switching as demonstrated by figure 7. Figure 7 demonstrates having the USB Flash Drive isolated and switching the wireless dongle to enabled and disabled one at a time. Chang is an enhancement to the current application's switching capabilities in terms of supporting one at a time switching along with simultaneous switching. Clearly from this citation one of ordinary skill in the art can realize that Chang teaches one at a time switching capabilities between a first and second USB module.

Conclusion

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26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Publication Number 2002/0169915 expresses a various mode detection and manual selection means for a USB hub. The examiner asserts various USB devices (modules) may be attached to the USB hub at the user's discretion. US Patent Number 6,944,687 teaches a USB device comprising a USB interface, radio component and a memory.

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aurangzeb Hassan whose telephone number is (571)

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272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH



KIM HUYNH
SUPERVISORY PATENT EXAMINER

10/30/06